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AGRICULTURAL MEMORANDUM No 762

Potato blight 1975 - Results from the new scheme

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An analysis has been carried out of the results from the new potato blight scheme after its first year in operational use. Places and dates of recorded potato blight outbreaks were supplied by the Plant Pathology Laboratory. Details of the analysis are tabulated in the appendix.

Ten out of the 19 reported outbreaks occurred 1-15 days after a 90% or above relative humidity period at the nearest representative reporting station. These 10 may be considered as being correctly forecast. When near misses were considered, this score was increased to 13 out of 19, the near misses being counted at Wittering, Watnall and Exeter.

Of the 6 outbreaks that were not forecast, those at Llandegfan, Anglesey (6 August) and Brynsiencyn, Anglesey (18 August) had Valley as the nearest station. Valley reported only one critical period (17-18 July) and one near miss (19-20 August). The outbreak at Ripon, Yorks (29 July) followed a critical period 18, 19 and 20 days previously at Leeming, which is just outside the 15 day limit. The same was true for the outbreak at Stourmouth, Kent (5 September), a 90% period occurring 17 and 18 days earlier at Manston. The outbreak at Halesowen (8 September) was not predicted by Elmdon, the nearest station. Elmdon (a civil airport) is not a good station for potato blight forecasting. Pershore, the next nearest station reported a near miss 19 and 20 days previous to the outbreak. There was no indication given in reports from Wattisham before the outbreak at Harwich (29 August).

Using the method for potato blight forecasting set out in Ag. Mem. 673a, counts were generally low. Only Brawdy gave a forecast date as early as 1-15 July, and no outbreaks were reported from this area to test this. All other stations gave the negative forecast of 'no outbreak before 25 July'. This was late in the case of the outbreak at St Neots, Hunts. (18 July) but correct for all other reported outbreaks. From the forecasts made from the index on 25 July, 11 were correct, 5 late and 3 early.

Comments

Outbreaks in irrigated crops and in dumps have been ignored in this analysis.

An exceptionally warm and dry summer meant that few 90% periods occurred except in South Wales, Cornwall and the North. Infection of blight was reported to be scattered and infection levels low. This fits in with the weather analysis wherein the relative absence of significant periods would have implied a low incidence.

The results from the year's potato blight scheme cannot be considered a fair test of the scheme because of the exceptional weather conditions during the summer.

Any comments or suggestions on this paper should be referred to the author.

October 1975

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Appendix

Outbreak Place	Date	Nearest Station	Critical periods (days before outbreak) near misses in brackets	Forecast obtained using Ag. Mem. 673a
St. Neots, Hunts	18/7	Wyton	9-10	After Jul 25 After Aug 9
Ripon, Yorks	29/7	Leeming	18-20	After Jul 25 After Aug 9
Nr Penrith, Cumberland	30/7	Carlisle	3-4, 7-8, 14-15, (18), 19-20	After Jul 25 Before Aug 10
Nr Nefyn, Gwynedd	30/7	Valley	12-13	After Jul 25 After Aug 9
Apethorpe, Northants	30/7	Wittering	(10-12)	After Jul 25 After Aug 9
Llandegfan, Anglesey	6/8	Valley	19-20	After Jul 25 After Aug 9
Nottingham	17/8	Watnall	(1-2), (28-29), 30-31	After Jul 25 After Aug 9
Brynsiencyn, Anglesey	18/8	Valley	31-32	After Jul 25 After Aug 9
Exeter, Devon	20/8	Exeter	(1-3), 37-38	After Jul 25 After Aug 9
Tywyn, Gwynedd	20/8	Aberporth	0-1, 4-5, (7), 8-13, 33-34, 36-41, 60-61	After Jul 25 Before Aug 10
Ruthin, Clwyd	21/8	Speke	(5-6), 10-11, 18-20, 38-39	After Jul 25 After Aug 9
Harwich, Essex	29/8	Wattisham	(40-41)	After Jul 25 After Aug 9
Saltash, Cronwall	1/9	Plymouth	12-16, 21-22, (26-27) 43-54	After Jul 25 Before Aug 10
Bloxworth, Dorset	2/9	Hurn	12-19, 26-27, (28) (46-47), 50-51	After Jul 25 After Aug 9
Stourmouth, Kent	5/9	Manston	17-18, (49-50)	After Jul 25 After Aug 9
Pocklington, Humberside	8/9	Leeming	0-2, (9-10), (24-25), (29-30), 59-61	After Jul 25 After Aug 9
Bodmin, Cornwall	8/9	St Mawgan	0-1, 5-7, (8), 10-12, 14-15, (18), 19-33, 50-51 (52), 53-54, (55) 56-62	After Jul 25 Before Aug 10

Halesowen, Worcs	8/9	Elmdon Pershore	52-53, (55-57) (19-20)	After Jul 25 After Aug 9
Thorncombe, Dorset	12/9	Exeter	10-12, (24-26), 60-61	After Jul 25 After Aug 9